

European lamps become more energy efficient

The EU has set new energy efficiency requirements that lamps produced for the EU market need to fulfil as from 1 September 2009.

Traditional incandescent and halogen bulbs will be gradually phased out from the market by the end of 2012.

However, particular care was taken to ensure that consumers will find lamp alternatives either offering the same light quality or higher energy savings.

This document explains the content of the measure, the available lamp alternatives, the benefits for the consumer, and some background on the legislative process.

We would like to highlight in particular the following in relation to the changeover:

- Improved incandescent bulbs with halogen technology and light emitting diode (LEDs) lamps will also be available as alternatives to conventional incandescent bulbs, not just compact fluorescent lamps. Improved incandescent bulbs, which also produce light by incandescence, provide exactly the same light quality as conventional bulbs.
- Lamps that are banned will not be removed from the shop shelves on 1 September. Retailers are allowed to sell their existing stocks.
- Many claims have been made about compact fluorescent lamps (CFLs, sometimes also called energy saving bulbs). More detailed information on their performance, cost savings, environmental impact and health-related issues is available in the attached frequently asked questions. [available soon]

What changes for the consumer? - energy and money savings

Conventional incandescent and halogen bulbs which cannot fulfil the requirements will be gradually phased out from the EU market beginning in 2009 and finishing in 2012.


However, there are many alternatives offering the same light quality and/or higher energy savings, including:

- Improved incandescent bulbs with halogen technology, fully equivalent to traditional incandescent bulbs in terms of shape and light quality
- efficient and long-life compact fluorescent lamps
- efficient lamps with the latest technology, light emitting diodes (LEDs)


All of these provide significant overall cost savings to the user due to lower consumption, even taking into account that their purchase price is higher. The costs savings will amount to 25 to 50 € per year, depending on the size of the household and on the choice of alternative bulbs.

The available alternatives - a wider choice of lamps


Improved incandescent bulb (class C of the energy label, halogen lamp with xenon gas filling)

	<p>This lamp uses about 20-25 % less energy for the same light output compared to the best conventional incandescents.</p> <p>It provides light of equivalent quality to conventional incandescents, but in normal use it lives twice as long (2 years).</p> <p>It is fully compatible in size with existing luminaires and dimmable on any dimmer.</p>
---	---

Improved incandescent bulb (class B of the energy label, halogen lamp with infrared coating)

	<p>This lamp will use about 45 % less energy for the same light output compared to the best conventional incandescents.</p> <p>It provides light of equivalent quality to conventional incandescents, but in normal use it lives three times as long (3 years).</p> <p>It is dimmable on any dimmer.</p>
--	--

Compact fluorescent lamps (CFL)

	<p>CFLs consist of fluorescent lamp tubes which use between 65 % and 80 % less energy than conventional incandescents. They are known to be a “money saver”, and they can live 6-15 years, depending on type and use (as opposed to 1 year for an incandescent bulb). There are models in all shapes and many are dimmable.</p> <p>CFLs are also available with an external envelope which hides the tubes and makes them even more similar to light bulbs.</p>
---	---

Light-emitting diodes (LEDs)



LEDs are a fast emerging technology and their efficacy is on par with that of CFLs, however they do not contain mercury and live even longer. LEDs for room illumination are today only in the first phases of commercialisation, but already now they provide replacements for both clear and non-clear light bulbs. They are likely to become alternatives to the full range of lamps in the near future.

Compact fluorescent lamps - tips for buying and using

- Before selecting a compact fluorescent lamp, check on its packaging:
 - The quantity of light produced: 1300-1400 lumens for the equivalent of a 100W incandescent bulb, 920-970 lumens for a 75W, 700-750 lumens for a 60W, 410-430 lumens for a 40W and 220-230 lumens for a 25W
 - The colour temperature (2700K or "warm white" for relaxing, more than 4000K or "cold white" for work)
 - Whether the lamp can be dimmed (if you need it)
 - Whether the lamp can handle very frequent switching (if you need it)
 - Whether the lamp can function in very cold temperatures if it is for outdoor use
- Do not place a compact fluorescent lamp in your bin - use dedicated return or collection facilities
- If the lamp breaks accidentally, it is better to air the room before cleaning the lamp with a wet cloth and to avoid skin contact with debris. Do not use a vacuum cleaner.

Benefits of the measure

The measure brings benefits for citizens, the environment and the economy.

It will save annually some 40TWh by 2020 - the equivalent of 11 million European household's energy usage for the same period. Crucially, it will lead to a reduction of up to 15 million tons of CO₂ emissions annually. It is part of the EU objective to cut greenhouse gas emissions by 20%, by 2020.

About 5 billion Euros will be saved and re-injected every year into the European economy. Finally, an average household's total electricity bill will be reduced by between 25 and 50 € per year, depending on the size of the household, of the number and type of lighting used.

Scope of the measure

Lamps that cannot meet the minimum energy efficiency and performance requirements (e.g. durability) will be phased out from the EU market beginning in September 2009 and ending in 2012. Further measures are planned for reflector lamps such as spotlights.

The measure distinguishes between lamps that are "clear" (transparent) and non-clear.

Non-clear lamps will need to reach the A-class according to the EU's lamp energy label, which means energy savings of 75 % or more as compared to traditional incandescent bulbs. Only compact fluorescent lamps and LED lamps can achieve such high efficiency. Consumers who want other lamp technologies due to factors such as aesthetics and size may purchase clear lamps.

Meanwhile, inefficient clear lamps will also be phased out gradually. From September 2009, equivalents of clear incandescent bulbs of 100W or more must be made with more efficient technology (e.g. efficient halogens). This limit will be moved down to lower wattages gradually until 2012 (75W in 2010, 60W in 2011, 40W and below in 2012).

New requirements on the functionalities of lamps (starting times, lifetime etc.) are also introduced so that only quality lamps will be allowed on the market that will meet the users' expectations. Additional product information will also be required on the packaging to help consumers to make the right choice for the intended purpose.

The measure applies to lamps manufactured and sold by the manufacturer or the importer as from 1st September 2009. Wholesalers and retailers will be able to continue selling existing stocks even after that date. This means that the lamps that are banned will only gradually disappear from the shop shelves.

The legislative process

This measure on domestic light bulbs is only one of a series of measures that the European Parliament and the Council of Member States have requested the European Commission to take under the Ecodesign of Energy Using Products Directive of (2005/32/EC) with the aim to improve the energy efficiency and environmental performance of more than 30 products groups (e.g. televisions, washing machines, electric motors, heating boilers etc.).

The measure on household lamps was prepared after in-depth technical and economic study, extensive consultation of all interested parties including consumer organizations, environmental NGOs and lamps and luminaires manufacturers. It was endorsed by the Council of Member States and the European Parliament and formally adopted by the Commission on 18 March 2009 (Commission Regulation N° 244/2009 on the ecodesign of household lamps).